

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1-70 (Cancelled).

Claim 71 (Currently amended): A method for inducing an antigen-specific immune response in an organism comprising:

(a) providing a formulation comprising ~~at least one molecule which has both antigenic and adjuvant activities and wherein the formulation does not contain molecules having only antigenic activity;~~

~~wherein the a molecule is selected from the group consisting of ADP-ribosylating exotoxins[,] B subunits of ADP-ribosylating exotoxins and mixtures thereof; and modified ADP-ribosylating exotoxins, wherein the modified exotoxin is catalytically inactivated or modified to be less toxic to the organism than the non-modified exotoxin; and,~~

(b) applying said formulation to skin of the organism without penetrating through said skin's dermis layer, ~~wherein said formulation is hydrated such that delivery of an effective amount of said formulation occurs, wherein said effective amount of said formulation induces said antigen-specific immune response in said organism. ; and~~

~~(c) wherein said formulation induces an antigen-specific immune response in said organism, wherein at least one epitope of said molecule is recognized.~~

Claim 72 (Currently amended): A method of claim 71, wherein said ADP-ribosylating exotoxin is selected from the group consisting of *E. coli* heat-labile ~~enterotoxin~~ enterotoxin (LT), cholera toxin (CT) and pertussis toxin (PT).

Claims 73-74 (Cancelled).

Claim 75 (Previously presented): The method of claim 71, wherein the organism is a human.

Claim 76 (Previously presented): The method of claim 71, wherein the formulation is applied in liquid form.

Claim 77 (Previously presented): The method of claim 71, wherein the formulation is provided in a form selected from the group consisting of cream, emulsion, gel, lotion, ointment, paste, solution and suspension.

Claim 78 (Previously presented): The method of claim 71, wherein the formulation is further provided in a container suitable for immersion or spraying of the organism.

Claim 79 (Previously presented): The method of claim 71, wherein the antigen-specific immune response is induced after only one application of the formulation to the skin.

Claim 80 (Previously presented): The method of claim 71, wherein the formulation is packaged in a unit dosage form which is effective to provide an immune response after one application of the formulation to the skin.

Claim 81 (Currently amended): The method of claim 71, wherein the formulation further comprises an additional molecule which induces an antigen-specific immune response in an organism. A method for inducing an antigen-specific immune response comprising:
(a) providing a formulation comprised of antigen and adjuvant;
~~wherein the adjuvant is selected from the group consisting of ADP-ribosylating exotoxins, B subunits of ADP-ribosylating exotoxins and modified ADP-ribosylating exotoxins, wherein the modified exotoxin is catalytically inactivated or modified to be less toxic to the organism than the a non-modified exotoxin; and,~~

(b) — applying said formulation to skin of an organism without penetrating through said skin's dermis layer; wherein said formulation induces an antigen-specific immune response in said organism, wherein at least one epitope of said antigen is recognized.

Claim 82 (Currently amended): The method of claim 81, wherein the antigen-specific immune response to said additional molecule recognizes at least one antigen of a pathogen.

Claim 83 (Previously presented): The method of claim 82, wherein the pathogen is selected from the group consisting of a bacterium, a virus, a fungus and a parasite.

Claim 84 (Previously presented): The method of claim 83, wherein the virus is selected from the group consisting of live viruses, attenuated viruses, and inactivated viruses.

Claim 85 (Canceled).

Claim 86 (Currently amended): The method of claim 81, wherein the antigen-specific immune response to said additional molecule recognizes an antigen selected from the group consisting of influenza virus hemagglutinin (HA), influenza virus nucleoprotein (NP), *Hemophilus influenza* B polysaccharide conjugate (Hib-PS), and *Escherichia coli* colonization factor CS6.

Claim 87 (Currently amended): The method of claim 81, wherein said ADP-ribosylating exotoxin is selected from the group consisting of *E. coli* heat-labile ~~enterotoxin~~ enterotoxin (LT), cholera toxin (CT) and pertussis toxin (PT).

Claims 88-89 (Cancelled).

Claim 90 (Previously presented): The method of claim 81, wherein the organism is a human.

Claim 91 (Previously presented): The method of claim 81, wherein the formulation is applied in liquid form.

Claim 92 (Previously presented): The method of claim 81, wherein the formulation is provided in a form selected from the group consisting of cream, emulsion, gel, lotion, ointment, paste, solution and suspension.

Claim 93 (Previously presented): The method of claim 81, wherein the formulation is further provided in a container suitable for immersion or spraying of the organism.

Claim 94 (Currently amended): The method of claim 81, wherein the antigen-specific immune response to said additional molecule is induced after only one application of the formulation to the skin.

Claim 95 (Previously presented): The method of claim 81, wherein the formulation is packaged in a unit dosage form which is effective to provide an immune response after one application of the formulation to the skin.

Claim 96 (Currently amended): The method of claim 71, wherein said ~~method further comprises formulation is hydrated by application of~~ a patch.

Claim 97 (Currently amended): The method of claim 81, wherein said ~~method further comprises formulation is hydrated by application of~~ a patch.

Claim 98 (New): The method of claim 71, wherein said formulation is hydrated by disruption of the stratum corneum or superficial epidermis.

Claim 99 (New): The method of claim 98, wherein said disruption is by one or more devices which disrupt only the stratum corneum or superficial epidermis.

Claim 100 (New): The method of claim 81, wherein said formulation is hydrated by disruption of the stratum corneum or superficial epidermis.

Claim 101 (New): The method of claim 100, wherein said disruption is by one or more devices which disrupt only the stratum corneum or superficial epidermis.

Claim 102 (New): A method for inducing an antigen-specific immune response in an organism comprising:

(a) providing a formulation consisting essentially of a molecule selected from the group consisting of ADP-ribosylating exotoxins, B subunits of ADP-ribosylating exotoxins and mixtures thereof; and,

(b) applying said formulation to skin of said organism without penetrating through said skin's dermis layer, wherein said formulation is hydrated such that delivery of an effective amount of said formulation occurs, wherein said effective amount of said formulation induces said antigen-specific immune response in said organism.

Claim 103 (New): The method of claim 102, wherein said formulation is hydrated by application of a patch.

Claim 104 (New): The method of claim 102, wherein said formulation is hydrated by disruption of the stratum corneum or superficial epidermis.

Claim 105 (New): The method of claim 104, wherein said disruption is by one or more devices which disrupt only the stratum corneum or superficial epidermis.